PRESCRIBED FIRE PLANNING AND IMPLEMENTATION

Final Exercise

You, as the Burn Boss, are responsible to develop a complete prescribed burn plan using the information presented in this class, along with the site information given. You can use any source of information available to help in the completion of your plan. Your plan can be as simple or as complicated as you want. You may use as much equipment or staff necessary to perform the burn in the safest manner. Remember, your plan needs to meet your burn objectives. Your evaluator is available to answer questions or give directions on the writing of the plan.

Upon completion of your plan, please elect one individual as your group leader (BURN BOSS) who will give a burn day briefing to the fire crew.

The Refuge Manager at Wichita Mountains Wildlife Refuge (Refuge) in central Oklahoma is interested in burning a 1,080-acre unit of native tall grass prairie (12-28 inches tall) which is becoming invaded by Eastern Red Cedar. This invading Red Cedar ranges in size from 1 foot to 20 feet in height. Without burning, this area would soon be taken over by the cedar and would reduce the Refuge's ability to continue the rotation grazing system which has been established for the longhorn cattle and buffalo for which the Refuge was established.

Through experience, the Refuge Manager has learned that in order to eliminate or retard growth of these Red Cedars, scorch heights need to be high enough to put flames in the tree crowns. Recent measurements taken found the cedars to have an average bark thickness of 0.4 inches and an average crown ratio of 0.8. The understory vegetation consists of mixed perennial warm season grasses and forbs. Current year production figure estimates are in excess of 2,500 pounds per acre. This site has historically been burned once every 3 years but, due to the lack of personnel, has not been burned for the past 5 years. The topography of the area is gently rolling hills with slopes from 2-5%.

Primary Resource Objectives

1. Protect tall grass habitat for a variety of native wildlife.
2. Preserve tall grass native prairie.
3. Prevent Eastern Red Cedar from encroachment into the tall grass prairie.

General Description of the Area

The burn unit is located along the southeast boundary of the Refuge, adjacent to Fort Sill Military Reservation. This boundary is separated by a 10-foot-tall net wire boundary fence with a 20-foot-wide gravel road/firebreak which the military uses to patrol the

base. A solid stand of red cedars, brush, and perennial vegetation extends from the Refuge to this boundary road. Once beyond this road/firebreak, the vegetation continues and an escaped fire to the south could pose significant control problems due to restricted military access; also, the area is a live fire artillery range that could have unexploded ordnance.

Elmer Thomas Lake is the east boundary of the burn unit. The west boundary is Ketch Road, which is a gravel road approximately 15 feet wide. Heavy grass vegetation is located on both sides of Ketch Road.

The northern boundary of the burn unit is State Highway 49. This is the main paved two-lane road, approximately 20 feet wide, which runs from the town of Medicine Park through the Refuge to Lawton, Oklahoma. This highway is heavily traveled and has a high rate of automobile accidents. Beyond the northern boundary, there are no substantial firebreaks to prevent an off-Refuge escaped fire. Across Highway 49 is Mount Scott. An escaped fire onto Mount Scott could burn into the community of Meers, Oklahoma, which lies at the northern edge of the Refuge. This is a rural community with approximately 150 home sites (urban interface). An escaped fire to the north could lead to significant control problems because Mount Scott and adjacent lands to the west are covered by heavy accumulations of vegetation in excess of 4,000 pounds per acre (fuel model 4) with slopes greater than 30%.

Throughout the burn unit there are numerous road markers, visitor direction and information signs, and telephone poles. There are no historic buildings or structures in the burn area. Archeological sites are confined to the eastern edge of Mount Scott. Public use facilities located within the burn unit include Mount Scott campground and Elmer Thomas Fishing Pier.

The nearest towns to the burn are Medicine Park, Oklahoma (population 300) located approximately 1.5 miles east of the burn unit. Cache, Oklahoma, is located approximately 7.5 miles to the southwest and Lawton, Oklahoma, is located 12 air miles to the southeast. The town of Meers, adjacent to the north boundary, is about 2.5 miles from the burn unit toward the northwest.

Radio Frequencies

Refuge channel 1,-167.200
Refuge repeater channel 2,-163.475, transmit -164.675, receive

Vegetation Monitoring

Prairie grassland	460 acres	fuel model 3	43% of total unit
Oak/red cedar	220 acres	fuel model 9	20% of total unit
Oak savannah	400 acres	fuel model 2	37%of total unit
	1,080 acres		

Refuge Equipment

1 - Type 6 engine (200-gallon)
1 - 1,000-gallon water tender
1 - 200-gallon slip-on trailer unit
1 - Mark III pump and hose.
1 - JD 450 dozer
1 - 1,000-gallon fold-a-tank
1 - road grader
1 - dump truck
1 - front end loader
1 - mower with tractor
1 - backhoe

Refuge Personnel

Fire crew - three people
Equipment operator
Equipment operator
Biologist
Office assistant/dispatcher
Assistant Refuge Manager
Refuge Manager

Public/Media Contacts

Fort Sill Military Reservation/Fire Control	345-8967
Meers Volunteer Fire Department	429-5643
Medicine Park Fire Department	387-0964
Fort Smith Interagency Dispatch Center	501-243-4576
Sheriff Department	639-2256
WTZX Radio Station	899-5674

Adjacent Landowners

Edward Help	234-5673
John Ames	453-7685
Bob Homley	867-2435
Betty Howdy	980-4536
Jimmy Regan	234-5678
Red Butler	456-1324